

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0118656; AI 97646; PER20080001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Total Environmental Solutions, Inc
Atwood Acres
PO Box 14056
Baton Rouge, LA 70898

- II. **PREPARED BY:** Rachel Davis

- DATE PREPARED:** January 30, 2009

- III. **PERMIT ACTION:** reissue LPDES permit LA0118656, AI 97646; PER20080001

LPDES application received: August 8, 2008

EPA has not retained enforcement authority.

LPDES permit issued: June 1, 2004
LPDES permit expires: May 31, 2009

IV. FACILITY INFORMATION:

- A. The application is for the discharge of treated sanitary wastewater from an existing privately owned treatment works serving the Atwood Acres Subdivision.

- B. The permit application does not indicate the receipt of industrial wastewater.

- C. The facility is located off LA Hwy 13, off Parish Road 26, on Atwood Drive in Crowley, Acadia Parish.

- D. The treatment facility consists of a facultative lagoon with chlorine disinfection.

- E. Outfall 001

Discharge Location: Latitude 30° 16' 73" North
Longitude 92° 23' 29" West

Description: treated sanitary wastewater

Expected Flow: (110 of homes x 400 gallons/day/home) + (15 Two Bedroom Apartments x 350 GPD) = 0.0492 MGD

Calculations for gallons per day were based upon figures obtained from Chapter 15 of the State of Louisiana Sanitary Code, Department of Health and Hospitals, Office of Public Health.

Type of Flow Measurement which the facility is currently using:
V-Notch Weir or stopwatch & bucket

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V. RECEIVING WATERS:

The discharge is into an unnamed ditch, thence into Long Point Gully, thence into Bayou Plaquemine Brule in segment 050201 of the Mermentau River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 050201 of the Mermentau River Basin are as indicated in the table below^{1/}:

Degree of Support of Each Use						
Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Not Supported	Not Supported	Not Supported	N/A	N/A	N/A	Full

^{1/}The designated uses and degree of support for Segment 050201 of the Mermentau River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 050201 of the Mermentau River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 24, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

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Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Rachel Davis
 Water Permits Division
 Department of Environmental Quality
 Office of Environmental Services
 P. O. Box 4313
 Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Final Effluent Limits:

Subsegment 050201, Bayou Plaquemine Brule, is not listed on LDEQ's Final 2006 303(d) List as impaired. However, subsegment 050201 was previously listed as impaired for organic enrichment/low DO, pathogen indicators, phosphorus, mercury, suspended solids/turbidity/siltation, total dissolved solids, ammonia, fipronil, for which the below TMDL's have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL's have been established for subsegment 050201:

Bayou Plaquemine Brule TMDL for Ammonia and Bayou Plaquemine Brule Watershed TMDL to Address Dissolved Oxygen and Nutrients Including Eight Point Source Wasteload Allocations and a Watershed Nonpoint Source Load Allocation

LDEQ's position, as supported by the ruling in the lawsuit regarding water quality criteria for nutrients (*Sierra Club v. Givens*, 710 So.2d 249 (La. App 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998), is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. Therefore, limitations consistent with the above-mentioned TMDLs shall be placed into the permit to address dissolved oxygen and nutrients (phosphorus and ammonia).

Therefore, limitations for CBOD₅, Ammonia, and Dissolved Oxygen are being placed into the permit.

Bayou Plaquemine Brule TMDL for Fecal Coliform

As per the TMDL, "The Louisiana Water Quality Regulations require point source discharges of treated sanitary wastewater to maintain a fecal coliform count of 200 cfu/100 ml in their effluent, i.e., they must meet the standard at end-of-pipe. Therefore, there will be no change in the permit requirements based upon a wasteload allocation resulting from this TMDL."

TMDL for TSS, Turbidity, and Siltation for the Mermentau River Basin

As per the TMDL, "Point Sources do not represent a significant source of TSS as defined in this TMDL. Point Sources discharge primarily organic TSS, which does not contribute to habitat impairment

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resulting from sedimentation. Because the point sources are minor contributors and discharges or organic suspended solids from point sources are already addressed by LDEQ through their permitting of point sources to maintain water quality standards for DO, the wasteload allocations for point source contributions were set to zero. This TMDL only addresses the landform contribution of TSS / sediment and does not address the insignificant point source contributions." Therefore, TSS limitations are being placed into the permit according to the current state policy.

Bayou Plaquemine Brule TMDL for Total Dissolved Solids (TDS)

In the Bayou Plaquemine Brule TMDL for Total Dissolved Solids (TDS), a specific wasteload allocation was given to Atwood Acres Subdivision. Therefore, the effluent limitation of 100 lbs/day TDS shall be placed into the permit as per the TMDL.

TMDL for the Pesticide Fipronil in the Mermentau River River Basin

As per the TMDL, "There are no known point sources for fipronil in the Mermentau River Basin. Effluent from several hundred other point source dischargers in the Mermentau River Basin is not expected to contain fipronil because its use is limited to rice farming. Therefore, concentrations of fipronil in their effluents are not expected and would be considered an enforcement issue and dealt with accordingly." Therefore, limitations for fipronil are not necessary for this permit.

OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Daily Max.	Basis
CBOD ₅ March-November December-February		10 mg/l 30 mg/l	15 mg/l 45 mg/l	Based on the <u>Bayou Plaquemine Brule TMDL for Ammonia and Bayou Plaquemine Brule Watershed TMDL to Address Dissolved Oxygen and Nutrients Including Eight Point Source Wasteload Allocations and a Watershed Nonpoint Source Load Allocation</u>
TSS		20 mg/l	30 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best

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Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
				Professional Judgement for the type of treatment technology utilized at this facility.
Total Dissolved Solids	100	----	----	Based on the <u>Bayou Plaquemine Brule TMDL for Total Dissolved Solids (TDS)</u>
Ammonia-Nitrogen March-November December-February		5 mg/l 15 mg/l	10 mg/l 30 mg/l	Based on the <u>Bayou Plaquemine Brule TMDL for Ammonia and Bayou Plaquemine Brule Watershed TMDL to Address Dissolved Oxygen and Nutrients Including Eight Point Source Wasteload Allocations and a Watershed Nonpoint Source Load Allocation</u>
Dissolved Oxygen*		5.0 mg/l	N/A	Based on the <u>Bayou Plaquemine Brule TMDL for Ammonia and Bayou Plaquemine Brule Watershed TMDL to Address Dissolved Oxygen and Nutrients Including Eight Point Source Wasteload Allocations and a Watershed Nonpoint Source Load Allocation</u>

*This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Daily Maximum) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

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2) pH

According to LAC 33:IX.3705.A.1., Sanitary dischargers must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0118656: Issued: June 1, 2004
Expires: May 31, 2009

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly</u> <u>Avg.</u> Report	<u>Daily</u> <u>Max</u> Report	<u>Measurement</u> <u>Frequency</u> 1/week	<u>Sample</u> <u>Type</u> Measure
Flow				
CBOD ₅				
March-November	10 mg/l	15 mg/l	1/month	Grab
December-February	30 mg/l	45 mg/l	1/month	Grab
TSS	20 mg/l	30 mg/l	1/month	Grab
Ammonia-Nitrogen				
March-November	5 mg/l	10 mg/l	1/month	Grab
December-February	15 mg/l	30 mg/l	1/month	Grab
DO				
March-November	5.0 mg/l	---	1/month	Grab
December-February	6.0 mg/l	---	1/month	Grab
Fecal Coliform Colonies	200	400	1/month	Grab

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates that no inspections have been done in the past two years

B) Compliance and/or Administrative Orders

A review of the files indicates that no orders have been administered against the facility in the past two years.

C) DMR Review

A review of the discharge monitoring reports for the period beginning **September 2006** through **September 2008** has revealed the following violations:

<u>Period of Excursion</u>	<u>Parameter</u>	<u>Outfall</u>	<u>Permit Limit</u>	<u>Reported Quantity</u>
January 2007	TSS	001	20 mg/l	24 mg/l
February 2007	TSS	001	20 mg/l	30 mg/l
	Fecal		200	6,700
	Fecal		400	6,700
March 2007	Fecal	001	200	600

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	Fecal		400	600
	BOD		20 mg/l	24 mg/l
April 2007	TSS	001	20 mg/l	25 mg/l
	Fecal		200	240
May 2007	Fecal	001	200	312
June 2007	DO*	001	5 mg/l	1.78 mg/l
July 2007	TSS	001	20 mg/l	33 mg/l
	TSS		30 mg/l	33 mg/l
	DO*		5 mg/l	2.03 mg/l
August 2007	DO*	001	5 mg/l	1.34 mg/l
September 2007	TSS	001	20 mg/l	38 mg/l
	TSS		30 mg/l	38 mg/l
	Fecal		200	TNTC
	Fecal		400	TNTC
	DO*		5 mg/l	2.56 mg/l
October 2007	DO*	001	5 mg/l	0.62 mg/l
November 2007	TSS	001	20 mg/l	72 mg/l
	TSS		30 mg/l	72 mg/l
	Fecal		200	264
	DO*		5 mg/l	0.69 mg/l
December 2007	TSS	001	20 mg/l	49 mg/l
	TSS		30 mg/l	49 mg/l
	Fecal		200	TNTC
	Fecal		400	TNTC
	BOD		20 mg/l	23 mg/l
	DO*		6 mg/l	1.86 mg/l
January 2008	TSS	001	20 mg/l	69 mg/l
	TSS		30 mg/l	69 mg/l
	Fecal		200	252
	DO*		6 mg/l	1.56 mg/l
February 2008	TSS	001	20 mg/l	33 mg/l
	TSS		30 mg/l	33 mg/l
	Fecal		200	TNTC
	Fecal		400	TNTC
	DO*		6 mg/l	Did Not Report
March 2008	TSS	001	20 mg/l	59 mg/l
	TSS		30 mg/l	59 mg/l
	Fecal		200	TNTC
	Fecal		400	TNTC
	DO*		5 mg/l	0.28 mg/l
April 2008	TSS	001	20 mg/l	24 mg/l
	Fecal		200	240
	DO*		5 mg/l	4.04 mg/l
May 2008	TSS	001	20 mg/l	21 mg/l
	Fecal		200	600
	Fecal		400	600
July 2008	Fecal	001	200	600
	Fecal		400	600
August 2008	Fecal	001	200	600
	Fecal		400	600
	DO*		5 mg/l	2.48 mg/l

*Atwood Acres was under a three year compliance schedule that allowed them to report on DO, but after the three years the facility continued to just report DO. The reported value was continually under the allowable limit of 5 mg/l (March-November) and 6 mg/l (December-February) but it was never reported as a violation.

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XII. ADDITIONAL INFORMATION:

The Louisiana Department of Environmental Quality (LDEQ) reserves the right modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(C) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act or more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's, if the effluent standard, limitations, water quality studies or TMDL's so issued or approved:

- a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b) Controls any pollutant not limited in the permit; or
- c) Requires reassessment due to change in 303(d) status of waterbody; or
- d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** shall remain as previously permitted:

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement</u>	<u>Sample</u>
Flow	1/week	Report
CBOD ₅	1/month	Grab
Total Suspended Solids	1/month	Grab
Ammonia-Nitrogen	1/month	Grab
Dissolved Oxygen	1/month	Grab
Fecal Coliform Bacteria	1/month	Grab
pH	1/month	Grab

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

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Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Total Environmental Solutions, Inc, Atwood Acres, August 8, 2008.